

FIRST VALID PLACE OF PUBLICATION OF *DUCHESNEA INDICA*
(ROSACEAE: POTENTILLEAE)

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ABSTRACT

The combination *Duchesnea indica* traditionally has been attributed to Focke (1888), who based his name on Andrews's (1807) *Fragaria indica*. When the genus name was published by Smith (1811), he proposed a superfluous and illegitimate species name, *D. fragiformis*, so it was felt that *D. indica* should have been established before 1888. A search of the literature using on-line resources found that indeed the combination was proposed by Tschemacher in 1835. A formal lectotypification of *F. indica* is proposed.

KEY WORDS: *Fragaria indica*, *Duchesnea fragiformis*, *Potentilla indica*, nomenclature

RESUMEN

La combinación *Duchesnea indica* ha sido atribuida tradicionalmente a Focke (1888) que basó su nombre en el de Andrews (1807) *Fragaria indica*. Cuando se publicó el nombre del género por Smith (1811), él propuso un nombre de especie superfluo e ilegítimo, *D. fragiformis*, así resultó que *D. indica* habría sido establecido antes de 1888. Una búsqueda bibliográfica usando recursos on-line encontró que realmente la combinación fue propuesta por Tschemacher en 1835. Se propone una lectotipificación formal de *F. indica*.

One of the world's most widely distributed weedy species in the rose family is the mock- or false-strawberry, *Duchesnea indica*. A member of the rose family (*Rosaceae* Juss. trib. *Potentilleae* Sweet), this native of south-central Asia is now found on every continent except (for the moment at least) Antarctica. According to Li et al. (2003), *D. indica* is one of two species in the genus, the other being *D. chrysantha* (Zoll. & Moritzal) Miq. of eastern Asia.

The species was originally described as *Fragaria indica* by Andrews (1807: ad tab 479) who knew the species as "an ornamental plant, but is in no other respect estimable" being grown in an English garden. Although superficially resembling the true strawberries (*Fragaria* L.) in its fleshy red fruit and ternate leaves, it differs in having yellow petals, doubly toothed leaflets, and protruding achenes on an essentially dry, almost tasteless accessory fruit. The genus *Duchesnea* was subsequently established for the plant by Smith (1811: 372) who proposed *D. fragiformis* Smith (1811: 373) as a superfluous and illegitimate name for the species. Since Focke (1888: 33), most treatments have adopted *D. indica* or followed Wolf (1904: 661) in treating the species as *Potentilla indica* (Andrews) T. Wolf based on the obvious similarities (other than the strawberry-like fruit) with *P. reptans* L. and other members of the sect. *Potentilla*.

Wolf's proposed relationship has been confirmed by recent molecular analyses (Eriksson et al. 1998; Lundberg et al. 2009; Dobeš & Paule, 2010), in which *Potentilla* and *Fragaria* fall into two separate clades, with *Duchesnea indica* nested within *Potentilla*. At the same time, however, Ertter (2007) continues to find the arguments against paraphyly *per se* unconvincing and accordingly opts to retain *Duchesnea* (as well as *Ivesia*, *Horkelia*, and *Horkeliella*) as distinct genera, even though this results in a paraphyletic *Potentilla* s.s.

When we prepared our treatment of the genus for the Flora of North America Project in 2006, we simply followed long-established tradition and credited the name *Duchesnea indica* to Focke and, basically, gave it no more thought. After all, this bibliographic reference was widely used and no one questioned it. Upon receipt of page proofs, however, Reveal decided to take advantage of the proliferation of web-based search tools to see if the combination *D. indica* might have been validly published prior to 1888. The discovery of an abundance of

overlooked names in the horticultural literature (Reveal 2012) suggested that this was probably the most likely place to find the name effectively published. Therefore, using the resources of Biodiversity Heritage Library (<http://www.biodiversitylibrary.org/>) and Google search for books (<http://books.google.com/>), Reveal easily discovered that, indeed, *D. indica* was proposed by Teschemacher (1835) long before 1888; without these resources, finding that place of publication would have been difficult. Thus:

Duchesnea indica (Andrews) Teschem., Hort. Reg. Gard. Mag. 1:460, 1 Dec 1835. TYPE: as "Duchesnia," based on *Fragaria indica* Andr., Bot. Repos. 7: ad t. 479, Oct 1807 (LECTOTYPE, designated here: [icon] Bot. Repos. 7:t. 479. 1807).

In proposing the basionym, Andrews knew the plant from a single individual that flowered in the garden of Charles Francis Greville (1749–1809), probably at his home near Paddington Green in London where he had glasshouses for his more exotic species, although it is possible the plant was seen at Warwick Castle where Greville lived late in his life. Andrews stated that the plant was "native of the north-east parts of Bengal" and this is most likely where Greville obtained his seed having been gathered by one of his many correspondents or friends as he was also an avid collector of ancient artworks and especially minerals. Andrews left no known herbarium but did contribute specimens to the herbarium of Sir James Edward Smith. Unfortunately, no original material of *Duchesnea indica* has been found at the Linnean Society in London. Nonetheless, it seems appropriate that the name be lectotypified to assure application of the name and accordingly we have selected the one original element we are aware of at this point in time.

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